

IN THE SPECIFICATION:

1. The Examiner has objected to the Abstract as not being on a separate page. The subject application is a U.S. National-Stage application based upon International Application No. PCT/US2004/027990. The Abstract in the parent international application is on a separate sheet. As such, the Applicant cannot determine the basis for the Examiner's objection.

If the Examiner is objecting to the fact that the Title of the invention is also included at the top of the page, then the Applicant submits that the Examiner's objection is superfluous. The Examiner has not cited any rule or regulation prohibiting the inclusion of the Title on the Abstract page. Indeed, the undersigned attorney has filed many U.S. National-Stage applications based upon international applications, and has never received such an objection. Nevertheless, in order to advance prosecution of the application and in the event that the Examiner's objection is to the inclusion of the Title on the Abstract page, the Applicant submits the following amendment to the Abstract. Please replace the Abstract with the following amended abstract:

SOFT-IN-PLANE ROTOR HUB

Abstract

A rotor hub assembly for a rotary-wing aircraft has a central member and a plurality of blade grips adapted for attaching rotor blades to the central member. The blade grips are pivotally attached to the central member and are capable of pivoting about a pivot axis generally normal to a plane of rotation of the blades. The pivoting allows for in-plane motion of the blades relative to the central member. A damper is operably connected to each blade grip for damping the in-plane motion of the associated blade, each damper being selectively switchable between at least two spring rates.

A clean copy of the replacement Abstract is attached here to for filing.

2. The Specification stands objected to as having the word "the" on page 4, line 18. Please amend the Specification as follows:

Figures 2 through 4 show a simplified, three-blade alternative embodiment of a rotor hub of the invention. Figure 2 is an exploded view, Figure 3 is a partial cutaway of the assembly, and Figure 4 is a cross-sectional plan view of the assembly. Referring to these figures, hub 31 includes central member 33, blade straps 35, and blade grips 37. Central member 33 is adapted to fixedly receive mast 34. Straps 35 are circumferential and are hingedly connected to central member 33 at flapping hinge 39. This allows for out-of-plane flapping motion of blades (not shown) attached to blade grips 37. Each blade grip 37 receives the root end of a blade in the outer end of grip 37, and the inner end of each grip 37 is connected to the outer end of the associated strap 35 with pitch horn brackets 41. Each grip 37 can rotate about an associated pitch axis 43, and the pitch for the blades is controlled using pitch horns 45 on brackets 41. An elastomeric bearing 47 is received within a recess 49 of each bracket 41 to provide for in-plane, chordwise pivoting of brackets 41 and grips 37 about a lead/lag axis 51 passing through the focus of each bearing 47. Both elastomeric bearing 47 and flapping hinge 39 are located within strap 35, with the axes for these hinges being non-coincident. This configuration allows for better packaging of the components of hub 31, especially in tiltrotor applications.

3. The Specification stands objected to as failing to provide antecedent basis for the feature "at least one pin," which is recited in Claims 4 and 12. Please amend the Specification as follows:

Replace the paragraph beginning on page 5, line 3, with the following amended paragraph:

As hub 31 is rotated by mast 34, centrifugal loads from the blades are transferred through grips 37 into brackets 41 and from brackets 41 into bearings 47. The loads are then transferred into straps 35 from bearings 47 and into central member 33 from straps 35. A post 53 protrudes from the inner end of each bearing 47, with post 53 extending through a bore 55 in recess 49 of the corresponding bracket 41. The inner end 57 of post 53 engages a multiple-spring-rate damper 59, post 53 extending into an opening 61 in the outer wall 63 of damper 59 and engaging piston 65. Though shown with an elastomeric bearing 47, hubs of the invention may be constructed in any appropriate configuration, including hubs using ~~pins~~ at least one pin or similar ~~connections~~ connection for the lead/lag hinge.

The Applicants submit that the foregoing amendments add no new matter to the application.